

# Integration in Assuring the Successful Startup of the W80 Weapons System Campaign

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# W80 SS-21 Disassembly and Inspection Operations

- W80
  - A cruise missile warhead
- Seamless Safety in the 21<sup>st</sup> Century (SS-21)
  - A modern methodology for performing nuclear explosive operations
- Disassembly and Inspection
  - An on-going part of Stockpile Stewardship
- The Pantex Documented Safety Analysis
  - Consists of 9 HARs and 11 SARs
  - More than 14,000 pages
  - Involved 1 HAR and 5 SARs.
- Start-up includes 4 levels of readiness review



#### **Define Scope**

- Tasking from National Nuclear Safety Administration
  - The Project Team defined the Scope of Work in the Project Execution Plan (PEP)
- W80 SS-21 Project Team Multi-Site Integration
  - NNSA
  - National Labs (LLNL, SNL)
  - Pantex
- B&W Pantex Internal Integration
  - Program Management, Project Management, Process Engineering, Tooling & Machine Design, Quality & Performance Assurance, Authorization Basis and Manufacturing Production Technicians



## **Identify Hazards**

Process
Engineering
Developed
Process Flow

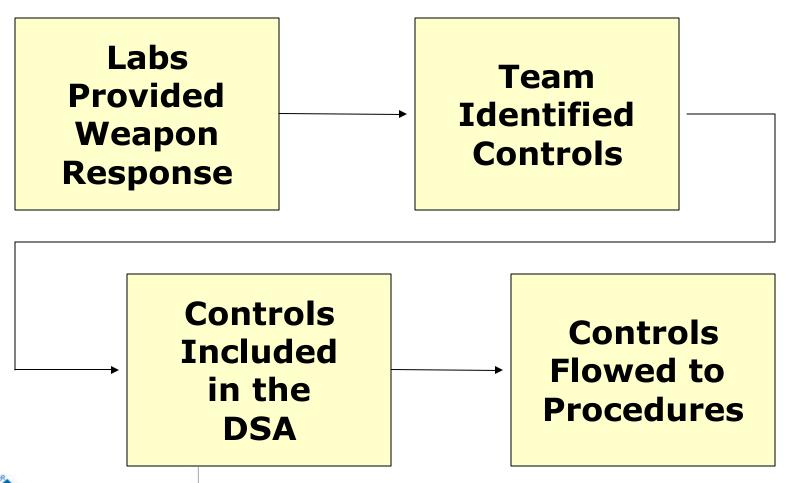
Tooling & Machine Design Developed Tooling Concepts

Project Team
Conducted
HATT
Walk Down

Hazards
Included
in the DSA



### Implement Controls





#### **Perform Work**

- Performance of work was demonstrated during the Readiness Activities required to achieve authorization operations
  - Project Team Verification Tryout (PVT)
  - Engineering Evaluation (EE)
  - Readiness Verification (RV)
  - Contractor Readiness Assessment (CRA)
  - Nuclear Explosive Safety Study (NESS)
  - NNSA Readiness Assessment (RA)



#### Feedback & Continuous Improvement

- Feedback occurred throughout the lifecycle of the project.
  - Weekly Project Team Meetings
  - Weekly Teleconferences with LLNL, SNL, and NNSA
  - Walk downs of the process during development
  - Tooling Tryouts
  - Manufacturing Validation of Procedures
  - Training
  - Readiness Reviews



#### Results

- Zero pre-start deficiencies in external readiness reviews
- Project achieved its scheduled milestone date
- Integration of the various management systems was the key to success
- Lessons Learned provided as feedback for improvement for future projects

